

WDNR Storm Water Program Updates, and other items of interest


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NASECA 2024




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Topics Included

- General Updates
- Grants Updates
- Storm Water Technical Standards
 - 1011 Vegetated Dry Detention Pond
 - 1012 Sand Filter for Storm Water
- Questions



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Grants

Urban Non-Point Source (UNPS)


• **2025 Construction Grants Applications are due April 15, 2024.**



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2025


URBAN NONPOINT SOURCE & STORM WATER (UNPS&SW) MANAGEMENT PROGRAM CONSTRUCTION GRANT APPLICATION INSTRUCTIONS



Applications must be submitted and received by **April 15, 2024** at 4:00 PM Central Standard Time.

NONPOINT SOURCE PROGRAM CONTACTS

Find the nonpoint source coordinator who serves your county by choosing a county below.



Bureau of Watershed Management
Division of Community Financial Assistance
Wisconsin Department of Natural Resources

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ELIGIBLE AREAS

Eligible areas are urban lands with a population density of at least 1,000 people per square mile or non-permitted commercial or municipally-owned industrial use. Projects may be in areas that are expected to become urban within 20 years.

CONSTRUCTION GRANT ELIGIBLE PROJECTS

- Construction of structural urban best management practices (BMPs) including detention, wet, infiltration, wetland basins or infiltration trenches.
- Engineering design and construction services for BMPs installation.
- Land acquisition and easement purchase, including appraisal cost.
- Storm sewer rerouting and removal of structures.
- Streambank and shoreline stabilization.

INELIGIBLE PROJECTS*

Activities ineligible for grant funding include operation and maintenance of urban best management practices and projects associated with new construction or development.



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CONSTRUCTION SITE EROSION & SEDIMENT CONTROL STANDARDS

Revision and Stabilization Practices	Number	Effective Date
Construction Erosion Mat (2002)	1002	Nov-18
Construction Site Stencils (2002)	1006	Mar-16
Stock Checks (2002)	1002	Nov-22
Deck Control (2002)	1008	Nov-17
Lead Application of Adhesives for Erosion Control (2002)	1006	Dec-15
Mulching for Construction Sites (2002)	1008	Jun-22
Non-channel Erosion Mat (2002)	1002	Nov-18
Seeding (2002)	1009	Nov-18
Technical Control Practices (2002)	1007	Jul-18
Grading Practices for Erosion Control - Temporary (2002)	1007	Mar-04
Vegetative Buffer for Construction Sites (2002)	1004	May-03

Setback Control Practices	Number	Effective Date
Clearing Practices for Setback Control (2002)	1005	Mar-20
Setback Buffer Barriers (2002)	1005	Aug-02
Setback Basin (2002)	1004	Mar-06
Setback Trap (2002)	1002	Oct-11
Silt Control (2002)	1010	Apr-03
Pre-treatment Sediment Control and Slope Interruption (2002)	1006	Nov-22
Storm Drain Inlet Protection for Construction Sites (2002)	1000	Jan-22
Turbidity Barriers (2002)	1000	Sep-05
Water Application of Adhesives for Setback Control (2002)	1002	Dec-15
Horizontal Directional Drilling (2002)	1002	
• Approved Horizontal Directional Drilling Products List (2002)		

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Technical Standards Updates

Post Construction Storm Water Management

Post-construction standards	Number	Effective date
Bio-retention for infiltration (2002)	1004	Oct-16
Compost (2002)	1000	Oct-17
Infiltration basin (2002)	1003	Oct-04
Infiltration trench (2002)	1007	May-12
Permeable pavement (2002) Tech notes (2002)	1008	Jun-21
Proprietary storm water filtration devices (2002)	1010	Sep-20
Tech note (2002)		
Filter efficiency adjustment spreadsheet (2002)		
Proprietary storm water sedimentation devices (2002)	1006	Apr-09
Rain Garden (2002)	1009	Sep-18
Site evaluation for stormwater infiltration (2002)	1002	Dec-22
Vegetated swale (2002)	1005	Dec-17
Wet detention pond Part 1 (2002), Part 2 (2002)	1001	Oct-07

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Standards Oversight Council (SOC)

An inter-agency collaboration that facilitates a **team** approach in **developing** and **maintaining** technical standards for soil and water conservation practices in Wisconsin.

SOC Mission:
Overseeing a collaborative process for developing effective technical standards that protect Wisconsin's natural resources.

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SOC Processes

- **Minor Process** – minimal changes
- **Modified Process** – time sensitive, limited use, limited involvement, minimal impact
- **Full Process** – new standard or major revisions

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Minor Process

- Updates to an existing standard
- No significant change to planning or design
- Draft is not posted for public review comment
- SOC will announce updates

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Modified Process

- Select a small diverse team of disciplines
- Team leader and SOC coordinator solicit team members
- Team is typically selected from team leader contacts
- Teams have 8 - 10 members
- A small group of technical disciplines reviews the draft
- Comments are addressed and standard is completed and added to WDNR website

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Full Process

- SOC solicits team members for a diverse team of disciplines
- Team leader and SOC coordinator solicit team members
- Team is typically from SOC website, and personal contacts
- Teams have 8 – 10 members
- Meet 1 day / month for ~ 1 year
- Initial 75% draft reviewed by small group of technical disciplines
- Public 21-day broad review is conducted
- Comments are addressed and standard is completed and added to WDNR website

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Why New Tech Standard?

- More tools needed
- Some BMPs don't fit everywhere
- Variety







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High Performance Dry Pond

Initial hopeful goal to develop a storm water basin without a permanent pool that could meet NR151 performance standards of TSS control, infiltration, and peak flow control

Assembled SOC Tech Standard team


- Full Process
- Started October 2021
- Meet Monthly



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Team Members

- **Kate Brunner** Standards Oversight Council
- Kevin Kirsch WDNR
- Eric Rortved WDNR
- Dan Bekta WDNR
- Laura Spears WDNR
- Jim Bachhuber Consulting and DNR
- Tim Whittaker Water Resources, LLC








Phil Gaebler City of Wisconsin
Theresa Cawley WISCONSIN DEPARTMENT OF NATURAL RESOURCES | DNR.WI.GOV

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Researchers and Presenters


- Bill Selbig
- Prof. Robert Pitt
- Prof. Andy Erickson
- Prof. John Gulliver
- Dr. Joseph Boxhorn
- Stacy Rowe

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Studied and Reviewed

- Research
- Vegetation
- Scour
- Resuspension
- Temperature
- Sediment storage
- Shear Stress
- Settling
- Media
- Media enhancements
- Phosphorus



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We did not get there...

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...but we learned a lot...

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What was determined- Two Standards

- Technical Standard **1011** – The goal of the standard for **Vegetated Dry Detention Pond** will be to provide a limited but quantifiable water quality benefit without a permanent pool.
- Technical Standard **1012** – The goal of the technical standard for **Storm Water Sand Filter** will be to include additional treatment elements to maximize and quantify TSS reduction, coupled with the ability to better address other pollutants.

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Tech Standard 1011 Dry Pond Considerations

- Vegetation
- Modeling
- Energy dissipation
- Outlet Structure
- Geometry
- Drawdown
- others

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Tech Standard 1011 Vegetated Dry Pond Key Elements

- No Permanent Pool
- Pre-treatment
 - Filter Strip
 - Swale
 - Sedimentation Device
- Dense Native Vegetation
- Prevent channel erosion
 - Check dams
 - Rock channel
 - Vegetation

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Tech Standard 1012 Enhanced Dry Treatment Considerations

- Austin Sand Filter
- Treatment Train
- Drainage area
- Drawdown time
- Underdrains
- Maintenance
- Vegetation
- Sand spec. and depth

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Tech Standard 1012 Storm Water San Filter Key Elements

- **Forebay**
 - Pretreatment
 - Energy Dissipation
- **Sediment Basin**
 - Vegetated or wet
 - Split flow
- **Sand Filter Bed**
 - 18 inches ASTM C-33 (concrete sand)
 - Underdrain

Ability to enhance media

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What happens next...

- Technical Standard **1011** – **Vegetated Dry Detention Pond** returned from initial review.
- Technical Standard **1012** – **Storm Water Sand Filter** currently under initial review.

Both will be offered for **21-day public broad review.**



SOC Mission:
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Both Standards expected in **2023** 2024

Follow along on progress:



- [WDNR 1011/1012 Dry Storm Water Basins/Enhanced Dry Treatment System | Standards Oversight Council \(socwisconsin.org\)](https://www.wisconsin.gov/dnr/standards/1011-1012)




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Questions ?



Mark your calendars!
27th Annual **BOCKFEST**
LIVE MUSIC by Sixteen Candles
SAT. FEBRUARY 24th, 2024








An Evening with Michael Perry

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CONNECT WITH US

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